

REMARKS

Duplicated Claims Warning

In the Office Action, the Examiner warned that Claim 1 would be objected to as being a substantial duplicate of Claim 27 if Claim 27 is found to be allowable. Claims 1 and 27 as presently presented are not substantial duplicates of one another. In this regard, Claim 1 recites a plurality of user terminals and participants using at least one client tool to access and manipulate data items represented in at least one document associated with at least one conference; whereas, Claim 27 recites a user terminal and a participant using a plurality of client tools to access and manipulate data items represented in a plurality of documents associated with at least one conference.

Claim Objections

In the Office Action, the Examiner objected to an informality in Claim 27 in relation to use of the term “repository server”. In view of the amendments to Claim 27, Applicant respectfully requests that such objection be withdrawn.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-9 and 27-34 stand rejected under 35 U.S.C. § 101. In this regard, the Examiner contends that independent Claims 1 and 27 in particular define systems comprising software per se and do not produce a tangible and useful result. Claims 1 and 27 as presently presented do not claim software per se and do achieve a tangible and useful result. In this regard, Claims 1 and 27 include terminals or a terminal connected to a network through which participants or a participant access at least one conference and are able to collaboratively access and manipulate data items represented in a document or documents associated with the conference using at least one client tool or client tools having interfaces displayable on the user terminals or terminal. Accordingly, Applicant respectfully requests that the 35 U.S.C. § 101 rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 7, 8, 27, 31 and 33 stand rejected under 35 U.S.C. § 103(a). In this regard, the Examiner contends in the Office Action that such claims are obvious based on United States Patent No. 5,996,003 to Namikata et al. (hereafter Namikata) in view of United States Patent No.

6,308,178 to Chang et al. (hereafter Chang). The Examiner has also rejected Claims 4-6, 9, 28-30, 32 and 34 under 35 U.S.C. § 103(a) contending that Claims 5, 6, and 28-30 are obvious based on the combination of Namikata, Chang, and United States Patent No. 6,317,777 to Skarbo et al. (hereafter Skarbo), that Claims 4 and 32 are obvious based on the combination of Namikata, Chang, and United States Patent No. 6,463,460 to Simonoff, and that Claims 9 and 34 are obvious based on the combination of Namikata, Chang, and United States Patent No. 6,430,556 to Goldberg et al. (hereafter Goldberg). Applicant respectfully disagrees with the Examiner's contentions and submits that independent Claims 1 and 27 as presently presented and all claims depending directly or indirectly therefrom are in condition for allowance.

Independent Claims 1 and 27 are directed to computer implemented collaboration systems integrating legacy system components. More specifically, the computer implemented collaboration system of independent Claim 1 includes a plurality of user terminals connected to a data network, a data management tier, a repository tier, a user interface tier, and a services tier. A plurality of participants access at least one conference within a context via the user terminals. The data management tier includes data sources, with at least one of the data sources being a legacy data source. The repository tier includes repository servers, with each repository server being associated with one of the data sources. The repository servers access data items within their respective associated data sources using access methods native to their respective associated data sources to create at least one document including data items selected from their respective associated data sources, with at least one document being associable with the at least one conference by at least one of the participants. The user interface tier includes at least one client tool enabled for displaying the data items within the data sources in client tool interfaces displayable on the user terminals. The services tier includes at least one data channel server associated with the at least one document, with the at least one data channel server being created when the at least one document is associated with the at least one conference. The at least one data channel server includes a data model and provides an interface between the repository servers and the at least one client tool. The at least one client tool receives the data model from the at least one data channel server and registers with the at least one data channel server to be informed of events received by the at least one data channel server from the data model. The collaboration system further includes at least one extended property associated with each data item within the data sources. A current version of the at least one extended property is

maintained within the data model of the at least one data channel server and is available for display by the at least one client tool only within the at least one conference with which the at least one document is associated.

The computer implemented collaboration system of independent Claim 27 includes a user terminal connected to a data network. A participant accesses at least one conference within a context via the user terminal. The system of Claim 27 also includes a first repository server associated with at least one non-legacy data source and enabled for accessing data items within the at least one non-legacy data source using access methods native to the at least one non-legacy data source. The collaboration system of Claim 27 also includes a second repository server associated with at least one legacy data source and enabled for accessing data items within the at least one legacy data source using access methods native to the at least one legacy data source. The collaboration system of Claim 27 also includes at least one document server, a plurality of client tools, and at least one data channel server. The at least one document server provides at least one interface for creating a plurality of documents, with each document representing selected data items within at least one of the at least one non-legacy data source and the at least one legacy data source, and with each document being associable with the at least one conference by the participant. The client tools display the data items represented by each document in client tool interfaces displayable on the user terminal. The at least one data channel server includes a data model and provides an interface between the repository servers and the client tools, with the at least one data channel server being created upon association of a document with the conference. The client tools receive the data model from the at least one data channel server and register with the at least one data channel server to be informed of events received by the at least one data channel server from the data model. The at least one data channel server also maintains an instance of at least one extended property associated with each data item represented in a document within the data model, wherein the extended properties are available for display by the client tools only within the conference with which a particular document is associated.

Collaboration systems in accordance with the limitations of Claims 1 and 27 provide for the creation of documents that represent selected data items from data sources including a legacy data source via associated repository servers that employ access methods native to the data sources. By associating the documents with a conference, participants can collaboratively access and manipulate data from multiple data sources at the same time to solve a common problem. In

this regard, extended properties associated with the data items included in the documents are maintained within a data model of a data channel server separate from the repository server that accesses the data items from the data sources. Maintaining the extended properties within a data model of the data channel server separate from the repository server provides the advantage of allowing for single user and multi-user collaboration without requiring that client tools be enabled for direct communication with one another or even have any knowledge of each other. Furthermore, extended properties are only displayed by the client tool within the conference with which a document is associated, and when changes are made to an extended property in one client tool interface, such changes are also displayed in other client tool interfaces. Additionally, the computer implemented collaboration systems of Claims 1 and 27 allow full access to query and create documents from both new (non-legacy) and legacy data sources and allow the client viewing tools thereof to act on the data from the non-legacy and legacy data sources collaboratively without requiring changes to legacy application software.

In contrast to the collaboration systems of Claims 1 and 27, Namikata is directed to a common document display apparatus and desktop conferencing system that imitates the distribution and explanation of conference documents in an actual conference so that conferences held in the video conferencing system approximate the actual conference. (See e.g., Namikata, Col. 1, lines 62-67). Namikata describes a desktop conferencing system in which conference participants can select documents from a list of documents for display in a two-layered document display area 53 having a document display layer 66 for displaying the conference document and draw layer 67 for displaying drawings made by the user with a pointer 54. (See e.g., Namikata, Col. 5, lines 26-40, FIGS. 5A-5D, and Col. 7, line 66 through Col. 8, line 17). More particularly, Namikata describes a desktop conferencing system that includes a transmitting side apparatus 100 and a receiving side apparatus 200. (See e.g. Namikata FIG. 1).

Namikata's transmission side apparatus 100 includes an information management control unit 1, an input unit 2, a document storing unit 3, a document selecting unit 4, a transmitting unit 5, a document display unit 6, and a telepointer display instruction unit 7. The information management unit 1 manages conference documents to be shared among terminals and information concerning the participants in the desktop conference and controls the apparatus based on the management information. The management information contains file names of the documents, page numbers, information for identifying the apparatus, information indicative of

whether a synchronism mode is set or not, information indicative of whether a telepointer is set or not, and information indicative of which position a pointer is located in the document displayed on the image plane. The input unit 2, which can be constituted as a scanner, inputs data, such as image data, of the conference documents. The data input by the input unit 2 is stored in the document storing unit 3. The document selecting unit 4 selects any document out of the conference documents stored in the document storing unit 3. The transmitting unit 5 transmits through a network 20 the document data selected by the document selecting unit 4 and necessary information in all the management information managed by the information management control unit 1. The document display unit 6 displays a corresponding document based on the selected document data. The telepointer display instruction unit 7 instructs the receiving side apparatus 200 as to whether or not a pointer being displayed on the document display unit 6 together with the document should be displayed as telepointer to the same position on the display image plane of the receiving side apparatus 200. (See Namikata Col. 4 lines 10-50).

Namikata's receiving side apparatus 200 includes an information management control unit 8, a receiving unit 9, and storing unit 10, a document list display unit 11, a selection unit 12, a document display unit 13 and a mode switching unit 14. The information management control unit 8 manages conference documents to be shared among terminals and information concerning the participants in the desktop conference and controls the apparatus based on the management information in the same manner as the transmitting side apparatus 100. The receiving unit 9 receives data of the conference documents and the management information transmitted through the network 20. Such received data is stored in the storing unit 10. The document list display unit 11 lists and displays the conference documents stored in the storing unit 10. The selection unit 12 selects any one of the conference documents displayed on the document display list unit 11 and the document display unit 13 displays a corresponding document based on the document data stored in the storing unit 10. The mode switching unit 14 switches over between modes indicative of whether or not the same document displayed on the document display unit 6 of the transmitting side apparatus 100 should be displayed on the document display unit 13 of the receiving side apparatus 200 at all times. (See Namikata, Col. 4, line 51 through Col. 5, line 55).

The various components of Namikata's receiving and transmitting side apparatuses 100, 200 are not the same and do not provide the same functionality as the combination of limitations

included in Applicant's computer implemented collaboration systems as claimed in Claims 1 and 27. Among other differences, Namikata lacks any description of multiple data sources (e.g. legacy and non-legacy), Namikata does not disclose multiple repository servers wherein each repository server is associated with a data source, and Namikata does not disclose that instances of extended properties are maintained within a data model of a data channel server created when a document is associated with a conference and when changes are made in one client tool interface to an extended property, these changes are reflected in the other client tool interfaces.

The Examiner contends in the Office Action that the telepointer described in Namikata is the equivalent of Applicant's at least one extended property. Applicant respectfully disagrees because Namikata's telepointer is not an extended property associated with each data item included in a document. Rather, Namikata's telepointer functionality merely allows a participant in Namikata's conference to find a position at which another participant is pointing out within a document shared among conference participants allowing the document distributor to point out a specific page and a specific point of the document to other participants for explaining the document. (See Namikata Col. 8, lines 59-67).

In addition to the above-noted deficiencies with the disclosure of Namikata as a reference with respect to Applicant's invention, Namikata actually teaches away from the type of sharing and collaboration enabled by Applicant's invention. In this regard, Namikata specifically states: "An image area of the document display unit 13 to which the document is displayed is formed with a two-layered structure. In the two-layered structure, when one layer is used for displaying the conference document, the other layer can be used for writing image data. Such a two-layered structure of the image area allows all the participants to share the conference document displayed on the one layer, but not to share the image data written on the other layer. Accordingly, such a conventional inconvenience as a memo written by a user of the receiving side apparatus 200 is shared by the other conference participants without fail can be eliminated, so that each participant can take a personal memo freely in any portion of the documents commonly distributed." (See Namikata, Col. 5, lines 36-49). Thus, Namikata specifically teaches that conference participants create information regarding a document that is not shared with other conference participants.

The Examiner notes that Namikata does not disclose inclusion of a legacy data source, but contends that it would be obvious to combine Chang's API for integrating legacy system

components with Namikata in order to provide data including legacy data to Namikata's system. Applicant respectfully disagrees. There is no motivation present in Namikata or Chang for such a combination. In this regard, Namikata makes no mention of the input unit 2 which "inputs data of the conference documents" receiving such data from a legacy data source, and in fact, only describes that "input unit 2 can be constituted with a scanner." (Namikata, col. 4, lines 23-24). Thus, Namikata only envisions conference documents being scanned for input to Namikata's conferencing system and does not envision the conference documents being obtained from any other source such as a legacy data source. Likewise, while Chang includes a legacy database 16 among the source applications 12 that Chang's integration system 10 migrates to destination applications 14 (Chang, Fig. 1 and Col. 3, lines 53-59), Chang makes no mention of a participant to a conference collaboratively accessing and manipulating data from both legacy and non-legacy sources. Thus, the desirability of doing so would not be recognized by one skilled in the art without Applicant's invention of a collaboration system that permits client viewing tools thereof to act on data from both non-legacy and legacy data sources collaboratively without requiring changes to legacy application software.

Furthermore, even if one skilled in the art were motivated to combine Chang's API for integrating legacy system components with Namikata's conferencing system, as noted previously, Namikata does not disclose other features of Applicant's invention as claimed in Claims 1 and 27 and therefore combining Chang with Namikata would not achieve each and every claim limitation of Claims 1 and 27.

Conclusion:

Given the noted deficiencies in Namikata and Chang, Applicant's invention as claimed in Claims 1 and 27 is not rendered obvious by Namikata in combination with Chang. Since, as discussed above, independent Claims 1 and 27 are in condition for allowance, there is no need to separately address the patentability of the claims depending directly or indirectly therefrom. In this regard, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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